Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL GUIDELINE CLEARINGHOUSE

General

Guideline Title

Low back pain and sciatica in over 16s: assessment and management.

Bibliographic Source(s)

National Guideline Centre. Low back pain and sciatica in over 16s: assessment and management. London (UK): National Institute for Health and Care Excellence (NICE); 2016 Nov 30. 18 p. (NICE guideline; no. 59).

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: National Collaborating Centre for Primary Care. Low back pain. Early management of persistent non-specific low back pain. London (UK): National Institute for Health and Clinical Excellence (NICE); 2009 May. 25 p. (Clinical guideline; no. 88).

This meets NGC's (revised) inclusion criteria.

Regulatory Alert

FDA Warning/Regulatory Alert

Note from the National Guideline Clearinghouse: This guideline references a drug(s) for which important revised regulatory and/or warning information has been released.

- April 20, 2017 – Codeine and Tramadol Medicines : The U.S. Food and Drug Administration (FDA) is restricting the use of codeine and tramadol medicines in children. These medicines carry serious risks, including slowed or difficult breathing and death, which appear to be a greater risk in children younger than 12 years, and should not be used in these children. These medicines should also be limited in some older children. Single-ingredient codeine and all tramadol-containing products are FDA-approved only for use in adults. FDA is also recommending against the use of codeine and tramadol medicines in breastfeeding mothers due to possible harm to their infants.
- August 31, 2016 – Opioid pain and cough medicines combined with benzodiazepines : A U.S. Food and Drug Administration (FDA) review has found that the growing combined used of opioid medicines with benzodiazepines or other drugs that depress the central nervous system (CNS) has resulted in serious side effects, including slowed or difficult breathing and deaths. FDA is adding Boxed Warnings to the drug labeling of prescription opioid pain and prescription opioid cough medicines and benzodiazepines.

Recommendations

Major Recommendations

Major Recommendations

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Guideline Centre on behalf of the National Institute for Health and Care Excellence (NICE). See the "Availability of Companion Documents" field for the full versions of this guidance (for invasive and non-invasive treatment) and related appendices.

The wording used in the recommendations in this guideline (for example words such as 'offer' and 'consider') denotes the certainty with which the recommendation is made (the strength of the recommendation) and is defined at the end of the "Major Recommendations" field.

Assessment of Low Back Pain and Sciatica

Alternative Diagnoses

Think about alternative diagnoses when examining or reviewing people with low back pain, particularly if they develop new or changed symptoms. Exclude specific causes of low back pain, for example, cancer, infection, trauma or inflammatory disease such as spondyloarthritis. If serious underlying pathology is suspected, refer to the relevant NGC summaries of National Institute for Health and Care Excellence (NICE) guidance on:

- Metastatic spinal cord compression. Diagnosis and management of adults at risk of and with metastatic spinal cord compression
- Spinal injury: assessment and initial management
- Suspected cancer: recognition and referral
- See also the NICE guideline Spondyloarthritis .

Risk Assessment and Risk Stratification Tools

Consider using risk stratification (for example, the STarT Back risk assessment tool) at first point of contact with a healthcare professional for each new episode of low back pain with or without sciatica to inform shared decision-making about stratified management.

Based on risk stratification, consider:

- Simpler and less intensive support for people with low back pain with or without sciatica likely to improve quickly and have a good outcome (for example, reassurance, advice to keep active and guidance on self-management)
- More complex and intensive support for people with low back pain with or without sciatica at higher risk of a poor outcome (for example, exercise programmes with or without manual therapy or using a psychological approach)

Imaging

Do not routinely offer imaging in a non-specialist setting for people with low back pain with or without sciatica.

Explain to people with low back pain with or without sciatica that if they are being referred for specialist opinion, they may not need imaging.

Consider imaging in specialist settings of care (for example, a musculoskeletal interface clinic or hospital) for people with low back pain with or without sciatica only if the result is likely to change management.

Non-invasive Treatments for Low Back Pain and Sciatica

Non-pharmacological Interventions

Self-management

Provide people with advice and information, tailored to their needs and capabilities, to help them self-manage their low back pain with or without sciatica, at all steps of the treatment pathway. Include:

- Information on the nature of low back pain and sciatica
- Encouragement to continue with normal activities

Exercise

Consider a group exercise programme (biomechanical, aerobic, mind–body or a combination of approaches) within the National Health Service (NHS) for people with a specific episode or flare-up of low back pain with or without sciatica. Take people's specific needs, preferences and capabilities into account when choosing the type of exercise.

Orthotics

Do not offer belts or corsets for managing low back pain with or without sciatica.

Do not offer foot orthotics for managing low back pain with or without sciatica.

Do not offer rocker sole shoes for managing low back pain with or without sciatica.

Manual Therapies

Do not offer traction for managing low back pain with or without sciatica.

Consider manual therapy (spinal manipulation, mobilisation or soft tissue techniques such as massage) for managing low back pain with or without sciatica, but only as part of a treatment package including exercise, with or without psychological therapy.

Acupuncture

Do not offer acupuncture for managing low back pain with or without sciatica.

Electrotherapies

Do not offer ultrasound for managing low back pain with or without sciatica.

Do not offer percutaneous electrical nerve simulation (PENS) for managing low back pain with or without sciatica.

Do not offer transcutaneous electrical nerve simulation (TENS) for managing low back pain with or without sciatica.

Do not offer interferential therapy for managing low back pain with or without sciatica.

Psychological Therapy

Consider psychological therapies using a cognitive behavioural approach for managing low back pain with or without sciatica but only as part of a treatment package including exercise, with or without manual therapy (spinal manipulation, mobilisation or soft tissue techniques such as massage).

Combined Physical and Psychological Programmes

Consider a combined physical and psychological programme, incorporating a cognitive behavioural approach (preferably in a group context that takes into account a person's specific needs and capabilities), for people with persistent low back pain or sciatica:

- When they have significant psychosocial obstacles to recovery (for example, avoiding normal activities based on inappropriate beliefs about their condition) or
- When previous treatments have not been effective

Return-to-Work Programmes

Promote and facilitate return to work or normal activities of daily living for people with low back pain with or without sciatica.

Pharmacological Interventions

For recommendations on pharmacological management of sciatica, see the NGC summary of NICE's guideline Neuropathic pain–pharmacological management. The pharmacological management of neuropathic pain in adults in non-specialist settings.

Consider oral non-steroidal anti-inflammatory drugs (NSAIDs) for managing low back pain, taking into account potential differences in gastrointestinal, liver and cardio-renal toxicity, and the person's risk factors, including age.

When prescribing oral NSAIDs for low back pain, think about appropriate clinical assessment, ongoing monitoring of risk factors, and the use of gastroprotective treatment.

Prescribe oral NSAIDs for low back pain at the lowest effective dose for the shortest possible period of time.

Consider weak opioids (with or without paracetamol) for managing acute low back pain only if an NSAID is contraindicated, not tolerated or has been ineffective.

Do not offer paracetamol alone for managing low back pain.

Do not routinely offer opioids for managing acute low back pain.

Do not offer opioids for managing chronic low back pain.

Do not offer selective serotonin reuptake inhibitors, serotonin–norepinephrine reuptake inhibitors or tricyclic antidepressants for managing low back pain.

Do not offer anticonvulsants for managing low back pain.

Invasive Treatments for Low Back Pain and Sciatica

Non-surgical Interventions

Spinal Injections

Do not offer spinal injections for managing low back pain.

Radiofrequency Denervation

Consider referral for assessment for radiofrequency denervation for people with chronic low back pain when:

- Non-surgical treatment has not worked for them and
- The main source of pain is thought to come from structures supplied by the medial branch nerve and
- They have moderate or severe levels of localised back pain (rated as 5 or more on a visual analogue scale, or equivalent) at the time of referral

Only perform radiofrequency denervation in people with chronic low back pain after a positive response to a diagnostic medial branch block.

Do not offer imaging for people with low back pain with specific facet join pain as a prerequisite for radiofrequency denervation.

Epidurals

Consider epidural injections of local anaesthetic and steroid in people with acute and severe sciatica.

Do not use epidural injections for neurogenic claudication in people who have central spinal canal stenosis.

Surgical Interventions

Surgery and Prognostic Factors

Do not allow a person's body mass index (BMI), smoking status or psychological distress to influence the decision to refer them for a surgical opinion for sciatica.

Spinal Decompression

Consider spinal decompression for people with sciatica when non-surgical treatment has not improved pain or function and their radiological findings are consistent with sciatic symptoms.

Spinal Fusion

Do not offer spinal fusion for people with low back pain unless as part of a randomised controlled trial.

Disc Replacement

Do not offer disc replacement in people with low back pain.

Definitions

Strength of Recommendations

Some recommendations can be made with more certainty than others, depending on the quality of the underpinning evidence. The Guideline Development Group (GDG) makes a recommendation based on the trade-off between the benefits and harms of a system, process or an intervention, taking into account the quality of the underpinning evidence. The wording used in the recommendations in this guideline denotes the certainty with which the recommendation is made (the strength of the recommendation).

Interventions That Must (or Must Not) Be Used

The GDG usually uses 'must' or 'must not' only if there is a legal duty to apply the recommendation. Occasionally the GDG uses 'must' (or 'must not') if the consequences of not following the recommendation could be extremely serious or potentially life threatening.

Interventions That Should (or Should Not) Be Used – a 'Strong' Recommendation

The GDG uses 'offer' (and similar words such as 'refer' or 'advise') when confident that, for the vast majority of people, a system, process or an intervention will do more good than harm, and be cost effective. Similar forms of words (for example, 'Do not offer…') are used when the GDG is confident that an intervention will not be of benefit for most people.

Interventions That Could Be Used

The GDG uses 'consider' when confident that a system, process or an intervention will do more good than harm for most people, and be cost effective, but other options may be similarly cost effective. The choice of intervention, and whether or not to have the intervention at all, is more likely to depend on the person's values and preferences than for a strong recommendation, and so the healthcare professional should spend more time considering and discussing the options with the person.

Clinical Algorithm(s)

An algorithm titled "Low back pain and sciatica management algorithm" is provided in the full version of the guideline (see the "Availability of Companion Documents" field).

In addition, a National Institute for Health and Care Excellence (NICE) pathway titled "Low back pain and sciatica overview" is provided on the NICE Web site .

Scope

Disease/Condition(s)

Low back pain with or without sciatica

Guideline Category

Diagnosis

Evaluation

Management

Rehabilitation

Risk Assessment

Treatment

Clinical Specialty

Chiropractic

Family Practice

Internal Medicine

Neurological Surgery

Orthopedic Surgery

Physical Medicine and Rehabilitation

Sports Medicine

Intended Users

Advanced Practice Nurses

Allied Health Personnel

Chiropractors

Health Care Providers

Nurses

Patients

Physical Therapists

Physician Assistants

Physicians

Psychologists/Non-physician Behavioral Health Clinicians

Public Health Departments

Guideline Objective(s)

- To provide guidance on the assessment and management of low back pain and sciatica in adults over the age of 16 years
- To outline physical, psychological, pharmacological and surgical treatments to help people manage their low back pain and sciatica in their daily life

Target Population

- People aged 16 or older presenting with symptoms of "non-specific" low back pain (the pain may or may not radiate to the limbs and is not associated with progressive neurological deficit)
- People aged 16 or older presenting with suspected sciatica

Note: Groups that will not be covered:

- Individuals who have low back pain or sciatica related to specific spinal pathologies, including:
  - Conditions of a non-mechanical nature including inflammatory causes of back pain (for example, ankylosing spondylitis or diseases of the viscera) or serious spinal pathology (for example, neoplasms, infections or osteoporotic collapse)
  - Neurological disorders (including cauda equina syndrome or mononeuritis)
  - Adolescent scoliosis
- People aged under 16 years

Interventions and Practices Considered

Diagnosis/Evaluation/Risk Assessment

1. Consideration of alternative diagnoses
2. Risk stratification and use of risk stratification tools (e.g., the STarT Back risk assessment tool)
3. Imaging (only in specialist settings)

Treatment/Management

1. Non-pharmacologic interventions
   - Self-management (providing information and education)

- Physical activity and exercise
- Manual therapy (spinal manipulation, spinal mobilization, and massage)
- Psychological therapy
- Combined physical and psychological treatment programme incorporating a cognitive behavioural approach
- Return-to-work program

2. Pharmacological interventions
    - Nonsteroidal anti-inflammatory drugs (NSAIDs)/COX-2 (cyclooxygenase-2) inhibitors
    - Weak opioids with or without paracetamol
3. Non-surgical Interventions
    - Radiofrequency denervation
    - Epidural injections
4. Surgical interventions
    - Consideration of prognostic factors for surgical referral
    - Spinal decompression
    - Spinal fusion only as part of a randomised controlled trial

Note: The following were considered but not recommended: orthotics; traction; acupuncture; electrotherapies (ultrasound, percutaneous electrical nerve stimulation [PENS]; transcutaneous electrical nerve stimulation [TENS], interferential therapy); paracetamol as a sole treatment; routine use of opioids; selective serotonin reuptake inhibitors, serotonin–norepinephrine reuptake inhibitors or tricyclic antidepressants, anticonvulsants; spinal injections; disc replacement.

Major Outcomes Considered

- Sensitivity, specificity, and predictive values of risk assessment tools
- Function measured by disability scores
- Pain severity
- Health-related quality of life
- Psychological distress
- Return to work
- Adverse events
- Surgical conversion, failure, and revision rates
- Healthcare utilisation (prescribing, investigations, hospitalisation, or health professional visit)
- Cost-effectiveness

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Guideline Centre on behalf of the National Institute for Health and Care Excellence (NICE). See the "Availability of Companion Documents" field for the full versions of this guidance (for invasive and non-invasive treatment) and related appendices.

Developing the Review Questions and Outcomes

Review Questions

Review questions were developed using a PICO framework (patient, intervention, comparison and outcome) for intervention reviews; using a framework of population, index tests, reference standard and target condition for reviews of diagnostic risk tools; using population, index test and treatment, comparator test and treatment for test and treat reviews; and using population, presence or absence of factors under investigation (for

example, prognostic factors) and outcomes for prognostic reviews.

This use of a framework guided the literature searching process, critical appraisal and synthesis of evidence, and facilitated the development of recommendations by the Guideline Development Group (GDG). The review questions were drafted by the National Guideline Centre technical team and refined and validated by the GDG. The questions were based on the key clinical areas identified in the scope (see Appendix A).

A total of 23 review questions were identified. Full literature searches, critical appraisals and evidence reviews were completed for all the specified review questions (see Table 1 in the full version of the guideline for non-invasive treatment).

Searching for Evidence

Clinical Literature Search

Systematic literature searches were undertaken to identify all published clinical evidence relevant to the review questions. Searches were undertaken according to the parameters stipulated within the National Institute for Health and Care Excellence (NICE) guidelines manual (see the "Availability of Companion Documents" field). Databases were searched using relevant medical subject headings, free-text terms and study-type filters where appropriate. Where possible, searches were restricted to articles published in English. Studies published in languages other than English were not reviewed. All searches were conducted in Medline, EMBASE, and The Cochrane Library. Additional subject specific databases were used for some questions: CINAHL (lifestyle interventions, combinations of interventions, non-invasive interventions); PsycINFO (combinations of interventions and psychological interventions); and AMED (non-invasive interventions). All searches were updated on 15 December 2015. No papers published after this date were considered.

Search strategies were quality assured by cross-checking reference lists of highly relevant papers, analysing search strategies in other systematic reviews, and asking GDG members to highlight any additional studies. Searches were quality assured by a second information scientist before being run. The questions, the study types applied, the databases searched and the years covered can be found in Appendix G.

The titles and abstracts of records retrieved by the searches were sifted for relevance, with potentially significant publications obtained in full text. These were assessed against the inclusion criteria.

All references sent by stakeholders were considered. Searching for unpublished literature was not undertaken. The National Guideline Centre and NICE do not have access to drug manufacturers' unpublished clinical trial results, so the clinical evidence considered by the GDG for pharmaceutical interventions may be different from that considered by the Medicines and Healthcare products Regulatory Agency (MHRA) and European Medicines Agency for the purposes of licensing and safety regulation.

Health Economic Literature Search

Systematic literature searches were also undertaken to identify health economic evidence within published literature relevant to the review questions. The evidence was identified by conducting a broad search relating to lower back pain in Medline (OVID), EMBASE (OVID), the National Health Service Economic Evaluations Database (NHS EED), the Health Technology Assessment (HTA) database and the Health Economic Evaluation Database (HEED) with no date restrictions (NHS EED ceased to be updated after March 2015; HEED was used for searches up to 29 October 2013 but subsequently ceased to be available from January 2015). Additionally, the search was run on Medline and EMBASE using a health economic filter, from 2013, to ensure recent publications that had not yet been indexed by the economic databases were identified. This was supplemented by additional searches that looked for economic papers specifically relating to quality of life on Medline and EMBASE as it became apparent that some papers in this area had not been identified by the first search. Where possible, searches were restricted to articles published in English. Studies published in languages other than English were not reviewed.

The health economic search strategies are included in Appendix G. All searches were updated on 21 December 2015. No papers published after this date were considered.

Identifying Evidence of Effectiveness

Research fellows conducted the tasks listed below, which are described in further detail in the rest of this section:

- Identified potentially relevant studies for each review question from the relevant search results by reviewing titles and abstracts. Full papers were then obtained.
- Reviewed full papers against pre-specified inclusion and exclusion criteria to identify studies that addressed the review question in the appropriate population, and reported on outcomes of interest (review protocols are included in Appendix C).

Inclusion and Exclusion Criteria

The inclusion and exclusion of studies was based on the criteria defined in the review protocols, which can be found in Appendix C. Excluded studies by review question (with the reasons for their exclusion) are listed in Appendix L. The GDG was consulted about any uncertainty regarding inclusion or exclusion criteria.

The key population inclusion criterion was: people aged 16 years or above with low back pain with or without sciatica.

The key population exclusion criterion was:

- Conditions of a non-mechanical nature, including
    - Inflammatory causes of back pain
    - Serious spinal pathology
    - Neurological disorders
    - Adolescent scoliosis
- People aged under 16 years

Conference abstracts were not included in any of the reviews. Literature reviews, posters, letters, editorials, comment articles, unpublished studies and studies not in English were excluded.

Refer to Section 4.3.1.1 in the full version of the guideline on non-invasive treatment for detailed information on inclusion and exclusion criteria for clinical studies.

Type of Studies

Randomised trials, non-randomised trials, and observational studies (including diagnostic or prognostic studies) were included in the evidence reviews as appropriate.

For most intervention reviews in this guideline, parallel randomised controlled trials (RCTs) were included because they are considered the most robust type of study design that can produce an unbiased estimate of the intervention effects. Crossover RCTs were excluded, unless post intervention data was reported prior to the point of crossover, in which case only this data was extracted. If non-randomised studies were appropriate for inclusion (for example, in prognostic reviews) the GDG stated a priori in the protocol that the analysis had to adjust for certain variables. If the study did not fulfil this criterion it was excluded, unless there was no other evidence available. Non-randomised studies were also included in some reviews if there was insufficient RCT evidence; this was outlined a priori in the protocols. Please refer to the review protocols in Appendix C for full details on the study design of studies selected for each review question.

For the diagnostic review question, diagnostic RCTs and cohort studies were considered for inclusion. For prognostic review questions, prospective and retrospective cohort studies were included. Case–control studies and cross-sectional studies were not included.

Where data from observational studies were included, the results for each outcome were presented separately from RCT evidence, and meta-analysis was carried out where possible.

Identifying Evidence of Cost-effectiveness

The GDG is required to make decisions based on the best available evidence of both clinical effectiveness and cost-effectiveness. Guideline recommendations should be based on the expected costs of the different options in relation to their expected health benefits (that is, their 'cost-effectiveness') rather than the total implementation cost alone. Thus, if the evidence suggests that a strategy provides significant health benefits at an acceptable cost per patient treated, it should be recommended even if it would be expensive to implement across the whole population.

Health economic evidence was sought relating to the key clinical issues being addressed in the guideline. Health economists:

- Undertook a systematic review of the published economic literature.
- Undertook new cost-effectiveness analysis in priority areas.

Literature Review

The health economists:

- Identified potentially relevant studies for each review question from the health economic search results by reviewing titles and abstracts. Full papers were then obtained.
- Reviewed full papers against pre-specified inclusion and exclusion criteria to identify relevant studies (see below for details)

Inclusion and Exclusion Criteria

Full economic evaluations (studies comparing costs and health consequences of alternative courses of action: cost-utility, cost-effectiveness, cost-benefit and cost-consequences analyses) and comparative costing studies that addressed the review question in the relevant population were considered potentially includable as economic evidence.

Studies that only reported cost per hospital (not per patient), or only reported average cost-effectiveness without disaggregated costs and effects were excluded. Literature reviews, abstracts, posters, letters, editorials, comment articles, unpublished studies and studies not in English were excluded. Studies published before 1999 and studies from non-Organisation for Economic Co-operation and Development (OECD) countries were also excluded, on the basis that the applicability of such studies to the present UK NHS context is likely to be too low for them to be helpful for decision-making.

Remaining health economic studies were prioritised for inclusion based on their relative applicability to the development of this guideline and the study limitations. For example, if a high quality, directly applicable UK analysis was available, then other less relevant studies may not have been included. Where exclusions occurred on this basis, this is noted in the relevant section.

For more details about the assessment of applicability and methodological quality see Table 7 in the full version of the guideline on non-invasive treatment and the economic evaluation checklist (Appendix G of the 2012 NICE guidelines manual) and the health economics review protocol in Appendix D.

When no relevant health economic studies were found from the economic literature review, relevant UK NHS unit costs related to the compared interventions were presented to the GDG to inform the possible economic implications of the recommendations

Number of Source Documents

See Appendix E: Clinical Article Selection and Appendix F: Health Economic Article Selection in the full guideline appendices (see the "Availability of Companion Documents" field) for detailed information on results of literature searches and the number of included and excluded studies for each review question.

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Overall Quality of Outcome Evidence in Grading of Recommendations Assessment, Development and Evaluation (GRADE)

Level	Description
High	Further research is very unlikely to change confidence in the estimate of effect.
Moderate	Further research is likely to have an important impact on confidence in the estimate of effect and may change the estimate.
Low	Further research is very likely to have an important impact on confidence in the estimate of effect and is likely to change the estimate.
Very Low	Any estimate of effect is very uncertain.

Methods Used to Analyze the Evidence

Meta-Analysis

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Guideline Centre on behalf of the National Institute for Health and Care Excellence (NICE). See the "Availability of Companion Documents" field for the full versions of this guidance (for invasive and non-invasive treatment) and related appendices.

Analysing Evidence of Effectiveness

Research fellows conducted the tasks listed below, which are described in further detail in the rest of this section:

- Critically appraised relevant studies using the appropriate study design checklist as specified in the NICE Guidelines Manual (see the "Availability of Companion Documents" field). Prognostic studies were critically appraised using National Guideline Centre checklists.
- Extracted key information about interventional study methods and results using 'Evibase', the National Guideline Centre's purpose-built software. Evibase produces summary evidence tables, including critical appraisal ratings. Key information about non-interventional study methods and results were manually extracted onto standard evidence tables and critically appraised separately (evidence tables are included in Appendix H).
- Generated summaries of the evidence by outcome. Outcome data were combined, analysed and reported according to study design:
    - Randomised data were meta-analysed where appropriate and reported in Grading of Recommendations Assessment, Development and Evaluation (GRADE) profile tables.
    - Observational data were presented as a range of values in GRADE profile tables or meta-analysed if appropriate.
    - Prognostic data were meta-analysed where appropriate and reported in GRADE profile tables.
    - There were no diagnostic studies identified for inclusion.
- A sample of a minimum of 10% of the abstract lists of the first 3 sifts by new reviewers and those for complex review questions (for example, prognostic reviews) were double-sifted by a senior research fellow and any discrepancies were rectified. All of the evidence reviews were quality assured by a senior research fellow. This included checking:
    - Papers were included or excluded appropriately
    - A sample of the data extractions
    - Correct methods were used to synthesise data
    - A sample of the risk of bias assessments

Methods of Combining Clinical Studies

Data Synthesis for Intervention Reviews

Where possible, meta-analyses were conducted using Cochrane Review Manager (RevMan5) software to combine the data given in all studies for each of the outcomes of interest for the review question.

All analyses were stratified for population (that is, people with low back pain, low back pain with or without sciatica, or sciatica), which meant that different studies with predominant population-groups in different population strata were not combined and analysed together.

Analysis of Different Types of Data

Refer to Section 4.3.3.1.1 in the full version of the guideline on non-invasive treatment for detailed discussion of analysis of different types of data including dichotomous outcomes, continuous outcomes, generic inverse variance, outcomes reported incompletely, and heterogeneity.

Data Synthesis for Prognostic Reviews

Data Synthesis for Prognostic Risk Factors Reviews

Odds ratios (ORs), risk ratios (RRs), or hazard ratios (HRs), with their 95% confidence intervals (CIs), for the effect of the pre-specified prognostic factors were extracted from the studies. Studies were only included if the confounders pre-specified by the GDG were either matched at baseline or were adjusted for in multivariate analysis. If there was insufficient evidence that met these criteria, then studies with multivariate analysis that adjusted for other confounders were included.

Studies of lower risk of bias were preferred, taking into account the analysis and the study design. In particular, cohort studies were preferred if they reported multivariable analyses that adjusted for key confounders identified by the GDG at the protocol stage for that outcome.

Data were combined in meta-analyses for prognostic studies where possible.

Data Synthesis for Prognostic Risk Tools Reviews

The GDG wished to know how accurate the risk stratification tools were when predicting chronicity of pain in people with low back pain and

sciatica. The risk stratification tool is considered as the "index test"; and the outcome (risk of poor outcome/delayed improvement) as the "target condition".

Discrimination and calibration were investigated for each tool. Calibration measures how well the predicted risks compare to observed risks. Discrimination refers to the ability of the prediction model to distinguish between those who do or do not experience the event of interest. Discrimination is typically assessed by calculating the area under the receiver operating characteristic curve (c-statistic). In this guideline the following cut-offs have been used:

- 90% to 100% indicates perfect discrimination
- 70% to 89% indicates moderate discrimination
- 50% to 69% indicates poor discrimination
- <50% not discriminatory at all

Randomised controlled trials (RCTs) and cohort studies were considered for the review. Area under the receiver operated characteristic (ROC) curve, sensitivity, specificity, predictive values, likelihood ratios, predicted risk versus observed risk (calibration), reclassification and other metrics/tests/analyses such as D statistic, R2 statistic and Brier score were extracted from the studies.

Data Synthesis for Diagnostic Risk Tools Reviews

Diagnostic RCTs (sometimes referred to as test and treat trials) are a randomised comparison of 2 diagnostic tests, with study outcomes being clinically important consequences of the diagnosis (patient-related outcome measures similar to those in intervention trials, such as mortality). Patients are randomised to receive test A or test B, followed by identical therapeutic interventions based on the results of the test (so someone with a positive result would receive the same treatment regardless of whether they were diagnosed by test A or test B). Downstream patient outcomes are then compared between the 2 groups. As treatment is the same in both arms of the trial, any differences in patient outcomes will reflect the accuracy of the tests in correctly establishing who does and does not have the condition. Data were synthesised using the same methods for intervention reviews.

Appraising the Quality of Evidence by Outcomes

Intervention Reviews

The evidence for outcomes from the included RCTs and, where appropriate, observational studies were evaluated and presented using an adaptation of the GRADE toolbox developed by the international GRADE working group. The software (GRADEpro) developed by the GRADE working group was used to assess the quality of each outcome, taking into account individual study quality and the meta-analysis results.

Each outcome was first examined for each of the quality elements listed and defined in Table 2 in the full version of the guideline on non-invasive treatment. Details of how the 4 main quality elements (risk of bias, indirectness, inconsistency and imprecision) were appraised for each outcome are given in Sections 4.3.4.1.1 to 4.3.4.1.4 of the full version of the guideline. Publication or other bias was only taken into consideration in the quality assessment if it was apparent.

Overall Grading of the Quality of Clinical Evidence

Once an outcome had been appraised for the main quality elements, an overall quality grade was calculated for that outcome. The scores (0, −1 or −2) from each of the main quality elements were summed to give a score that could be anything from 0 (the best possible) to −8 (the worst possible). However scores were capped at −3. This final score was then applied to the starting grade that had originally been applied to the outcome by default, based on study design. All RCTs started as High and the overall quality became Moderate, Low or Very Low if the overall score was −1, −2 or −3 points respectively (see the "Rating Scheme for the Strength of the Evidence" field). The reasons for downgrading in each case were specified in the footnotes of the GRADE tables.

Observational interventional studies started at Low, and so a score of −1 would be enough to take the grade to the lowest level of Very Low. Observational studies could, however, be upgraded if there were all of: a large magnitude of effect, a dose-response gradient, and if all plausible confounding would reduce the demonstrated effect.

Prognostic Reviews

Refer to Section 4.3.4.2 of the full version of the guideline for information on methods for evaluating the quality of the evidence for prognostic reviews.

Assessing Clinical Importance

The GDG assessed the evidence by outcome in order to determine if there was, or potentially was, a clinically important benefit favouring the intervention or comparator, or no clinically important difference between interventions. To facilitate this, binary outcomes were converted into absolute risk differences (ARDs) using GRADEpro software: the median control group risk across studies was used to calculate the ARD and its 95% CI from the pooled risk ratio.

The assessment of clinical benefit favouring intervention or comparator, or no benefit was based on the point estimate of absolute effect for intervention studies, which was standardised across the reviews. The GDG used MIDs to determine clinical importance. Where there was no published MID in the literature, the GDG were asked to determine MIDs based on consensus, that would be used as a value that would be used to assess clinical importance on consensus. This was done when agreeing the protocols, for each outcome. The GDG agreed that for the outcomes in this guideline MIDs to assess clinical importance would be based on an improvement of 10% as a measure of clinical benefit, e.g., 1 point decrease on a 0-10 scale for pain severity. It was agreed that for the EQ-5D scale, a value of 0.03 should be used to be consistent with the published SF-36 values. The values used for imprecision and clinical importance are provided in Table 6 of the full version of the guideline.

This assessment was carried out by the GDG for each critical outcome, and an evidence summary table was produced to compile the GDG's assessments of clinical importance per outcome (considering also the baseline values for continuous outcomes), alongside the evidence quality and the uncertainty in the effect estimate (imprecision).

Clinical Evidence Statements

Clinical evidence statements are summary statements that are included in each review chapter, and which summarise the key features of the clinical effectiveness evidence presented. The wording of the evidence statements reflects the certainty or uncertainty in the estimate of effect. The evidence statements are presented by outcome and encompass the following key features of the evidence:

- The number of studies and the number of participants for a particular outcome
- An indication of the direction of clinical importance (if one treatment has any added benefit compared to the other or whether there is no difference between the 2 tested treatments)
- A description of the overall quality of the evidence (GRADE overall quality)

Analysing Evidence of Cost-effectiveness

The GDG is required to make decisions based on the best available evidence of both clinical effectiveness and cost-effectiveness. Guideline recommendations should be based on the expected costs of the different options in relation to their expected health benefits (that is, their 'cost-effectiveness') rather than the total implementation cost alone. Thus, if the evidence suggests that a strategy provides significant health benefits at an acceptable cost per patient treated, it should be recommended even if it would be expensive to implement across the whole population.

Health economic evidence was sought relating to the key clinical issues being addressed in the guideline. Health economists:

- Undertook a systematic review of the published economic literature
- Undertook new cost-effectiveness analysis in priority areas

Literature Review

The health economists:

- Critically appraised relevant studies using economic evaluations checklists as specified in the NICE guidelines manual
- Extracted key information about the studies' methods and results into economic evidence tables (included in Appendix I)
- Generated summaries of the evidence in NICE economic evidence profile tables (included in the relevant chapter for each review question) – see below for details

NICE Health Economic Evidence Profiles

NICE economic evidence profile tables were used to summarise cost and cost-effectiveness estimates for the included health economic studies in each review chapter. The economic evidence profile shows an assessment of applicability and methodological quality for each economic study, with footnotes indicating the reasons for the assessment. These assessments were made by the health economist using the economic evaluation checklist from the NICE guidelines manual. It also shows the incremental costs, incremental effects (for example, quality-adjusted life years [QALYs]) and incremental cost-effectiveness ratio (ICER) for the base case analysis in the study, as well as information about the assessment of uncertainty in the analysis. See Table 7 in the full version of the guideline on non-invasive treatment for more details.

When a non-UK study was included in the profile, the results were converted into pounds sterling using the appropriate purchasing power parity.

Undertaking New Health Economic Analysis

As well as reviewing the published health economic literature for each review question, new health economic analysis was undertaken by the health economist in selected areas. Priority areas for new analysis were agreed by the GDG after formation of the review questions and consideration of the existing health economic evidence.

The GDG identified radiofrequency denervation as the highest priority area for original health economic modelling. The clinical review showed that radiofrequency denervation is clinically effective at improving the pain score outcome for individuals that have severe low back pain. Therefore an economic model was prioritised to assess whether the increase in effectiveness associated with this intervention justifies its additional costs.

The following general principles were adhered to in developing the cost-effectiveness analysis:

- Methods were consistent with the NICE reference case for interventions with health outcomes in NHS settings.
- The GDG was involved in the design of the model, selection of inputs and interpretation of the results.
- Model inputs were based on the systematic review of the clinical literature supplemented with other published data sources where possible.
- When published data were not available GDG expert opinion was used to populate the model.
- Model inputs and assumptions were reported fully and transparently.
- The results were subject to sensitivity analysis and limitations were discussed.
- The model was peer-reviewed by another health economist at the NGC.

Full methods for the cost-effectiveness analysis for radiofrequency denervation are described in Appendix N.

Cost-effectiveness Criteria

NICE's report 'Social value judgements: principles for the development of NICE guidance' sets out the principles that GDGs should consider when judging whether an intervention offers good value for money. In general, an intervention was considered to be cost-effective (given that the estimate was considered plausible) if either of the following criteria applied:

- The intervention dominated other relevant strategies (that is, it was both less costly in terms of resource use and more clinically effective compared with all the other relevant alternative strategies), or
- The intervention cost less than £20,000 per QALY gained compared with the next best strategy.

If the GDG recommended an intervention that was estimated to cost more than £20,000 per QALY gained, or did not recommend one that was estimated to cost less than £20,000 per QALY gained, the reasons for this decision are discussed explicitly in the 'Recommendations and link to evidence' section of the relevant chapter, with reference to issues regarding the plausibility of the estimate or to the factors set out in 'Social value judgements: principles for the development of NICE guidance'.

When QALYs or life years gained are not used in the analysis, results are difficult to interpret unless one strategy dominates the others with respect to every relevant health outcome and cost.

In the Absence of Economic Evidence

When no relevant published health economic studies were found, and a new analysis was not prioritised, the GDG made a qualitative judgement about cost-effectiveness by considering expected differences in resource use between options and relevant UK NHS unit costs, alongside the results of the review of clinical effectiveness evidence.

The UK NHS costs reported in the guideline are those that were presented to the GDG and were correct at the time recommendations were drafted. They may have changed subsequently before the time of publication. However, the GDG has no reason to believe they have changed substantially.

Methods Used to Formulate the Recommendations

Expert Consensus

Informal Consensus

Description of Methods Used to Formulate the Recommendations

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Guideline Centre on behalf of the National Institute for Health and Care Excellence (NICE). See the "Availability of Companion Documents" field for the full versions of this guidance (for invasive and non-invasive treatment) and related appendices.

Who Developed the Guideline?

A multidisciplinary Guideline Development Group (GDG) comprising health professionals and researchers as well as lay members developed this guideline. The GDG was convened by the National Guideline Centre in accordance with guidance from NICE.

The group met approximately every 4 weeks during the development of the guideline. Staff from the National Guideline Centre provided methodological support and guidance for the development process. The team working on the guideline included a project manager, document editor, systematic reviewers (research fellows), health economists and information scientists. They undertook systematic searches of the literature, appraised the evidence, conducted meta-analysis and cost-effectiveness analysis where appropriate and drafted the guideline in collaboration with the GDG.

Developing Recommendations

Over the course of the guideline development process, the GDG was presented with:

- Evidence tables of the clinical and economic evidence reviewed from the literature. All evidence tables are in Appendices H and I.
- Summaries of clinical and economic evidence and quality (see full version of the guidelines)
- Forest plots (see Appendix K)
- A description of the methods and results of the cost-effectiveness analysis undertaken for the guideline (see Appendix N)

Recommendations were drafted on the basis of the GDG's interpretation of the available evidence, taking into account the balance of clinical benefit favouring the intervention or comparator. Evidence comparing intervention against sham/placebo was given priority over other comparisons when developing recommendation in order to determine whether the treatment effect was over and beyond any contextual or placebo effects.

The GDG also considered costs between different courses of action. This was either done formally in an economic model, or informally. Firstly, the net clinical benefit for the intervention over comparator (clinical effectiveness) was considered, focusing on the critical outcomes. When this was done informally, the GDG took into account the clinical effectiveness when one intervention was compared with another. The assessment of net clinical benefit was moderated by the importance placed on the outcomes (the GDG's values and preferences), and the confidence the GDG had in the evidence (evidence quality). Secondly, the GDG assessed whether the net clinical benefit justified any differences in costs between the alternative interventions.

When clinical and economic evidence was of poor quality, conflicting or absent, the GDG drafted recommendations based on its expert opinion. The considerations for making consensus-based recommendations include the balance between potential harms and benefits, the economic costs compared to the economic benefits, current practices, recommendations made in other relevant guidelines, patient preferences and equality issues. The consensus recommendations were agreed through discussions in the GDG. The GDG also considered whether the uncertainty was sufficient to justify delaying making a recommendation to await further research, taking into account the potential harm of failing to make a clear recommendation.

The GDG considered the appropriate 'strength' of each recommendation. This takes into account the quality of the evidence but is conceptually different. Some recommendations are 'strong' in that the GDG believes that the vast majority of healthcare and other professionals and patients would choose a particular intervention if they considered the evidence in the same way that the GDG has. This is generally the case if the benefits clearly outweigh the harms for most people and the intervention is likely to be cost-effective. However, there is often a closer balance between benefits and harms, and some patients would not choose an intervention whereas others would. This may happen, for example, if some patients are particularly averse to some side effect and others are not. In these circumstances the recommendation is generally weaker, although it may be possible to make stronger recommendations about specific groups of patients (see the "Rating Scheme for the Strength of the Recommendations" field).

The GDG focused on the following factors in agreeing the wording of the recommendations:

- The actions health professionals need to take
- The information readers need to know
- The strength of the recommendation (for example the word 'offer' was used for strong recommendations and 'consider' for weaker recommendations)
- The involvement of patients (and their carers if needed) in decisions on treatment and care
- Consistency with NICE's standard advice on recommendations about drugs, waiting times and ineffective interventions (see Section 9.2 in

the 2014 NICE guidelines manual [see the "Availability of Companion Documents" field])

The main considerations specific to each recommendation are outlined in the 'Recommendations and link to evidence' sections within each chapter.

Rating Scheme for the Strength of the Recommendations

Strength of Recommendations

Some recommendations can be made with more certainty than others, depending on the quality of the underpinning evidence. The Guideline Development Group (GDG) makes a recommendation based on the trade-off between the benefits and harms of a system, process or an intervention, taking into account the quality of the underpinning evidence. The wording used in the recommendations in this guideline denotes the certainty with which the recommendation is made (the strength of the recommendation).

Interventions That Must (or Must Not) Be Used

The GDG usually uses 'must' or 'must not' only if there is a legal duty to apply the recommendation. Occasionally the GDG uses 'must' (or 'must not') if the consequences of not following the recommendation could be extremely serious or potentially life threatening.

Interventions That Should (or Should Not) Be Used – a 'Strong' Recommendation

The GDG uses 'offer' (and similar words such as 'refer' or 'advise') when confident that, for the vast majority of people, a system, process or an intervention will do more good than harm, and be cost effective. Similar forms of words (for example, 'Do not offer…') are used when the GDG is confident that an intervention will not be of benefit for most people.

Interventions That Could Be Used

The GDG uses 'consider' when confident that a system, process or an intervention will do more good than harm for most people, and be cost effective, but other options may be similarly cost effective. The choice of intervention, and whether or not to have the intervention at all, is more likely to depend on the person's values and preferences than for a strong recommendation, and so the healthcare professional should spend more time considering and discussing the options with the person.

Cost Analysis

See the "Economic Evidence" sections for each review question in the full versions of the guideline (on non-invasive and invasive treatment) for specific cost-effectiveness considerations for each guideline review question.

Cost-effectiveness Analysis: Radiofrequency Denervation

The clinical review showed that radiofrequency denervation (RFD) is clinically effective at improving the pain score outcome for individuals that have severe low back pain. Given the potential high cost and resource use associated with this procedure and the availability of clinical evidence to inform an original cost effectiveness analysis, an economic model was prioritised to assess whether the increase in effectiveness associated with RFD justifies the incremental costs. The clinical question that the model tries to address is: What is the clinical and cost-effectiveness of radiofrequency denervation for facet joint pain in the management of non-specific low back pain?

Model Overview

In this model RFD was compared to usual care, defined as active management in primary care. The RFD intervention consists of an initial diagnostic block which identifies patients who are likely to respond to the RFD; the Guideline Development Group (GDG) has not looked at the literature comparing the effectiveness of different numbers of diagnostic blocks as part of the guideline and therefore are unable to comment on the efficacy of different numbers of blocks. They therefore used the mean number of blocks used in the trials that inform the review (i.e., 1). After the diagnostic block, some patients will end up not receiving RFD should the diagnostic block be negative. If the diagnostic block is positive, the model includes the possibility that the individual refuses the actual RFD intervention or that the response to the block leads to an adequate reduction in pain and RFD is not immediately necessary.

Conclusions

The GDG considered the various limitations of the model together with the main results and concluded that although RFD is a cost-effective intervention in the base case analysis and in various sensitivity analyses, there is not enough confidence to make a firm recommendation for this

intervention. In addition, as the low back pain population is wide, there are concerns on the potential cost impact of a firm recommendation if many people were eligible for the intervention.

Refer to Appendix N for details of the cost-effectiveness analysis (see the "Availability of Companion Documents" field).

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

Validation Process

This guidance is subject to a 6-week public consultation and feedback as part of the quality assurance and peer review of the document. All comments received from registered stakeholders are responded to in turn and posted on the National Institute for Health and Care Excellence (NICE) Web site. See Chapter 10 of Developing NICE guidelines: the manual (2014) (see the "Availability of Companion Documents" field) for more information on the validation process for draft guidelines and dealing with stakeholder comments.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is not specifically stated.

See the "Types of Studies" section in the "Description of Methods Used to Collect/Select the Evidence" field for information on the type of studies used to formulate the recommendations.

Also refer to the "Evidence statements" sections in the full version of the guideline for discussion of the evidence supporting each recommendation.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

- Provision of physical, psychological, pharmacological and surgical treatments to help people manage low back pain and sciatica in daily life
- Improved quality of life by promoting the most effective forms of care for low back pain and sciatica

Refer to the "Trade-off between benefits and harms" sections in the full versions of the guideline (for invasive and non-invasive treatment) (see the "Availability of Companion Documents" field) for details about benefits of specific assessments and interventions.

Potential Harms

- Adverse events with manual therapy were common, minor and transient, consisting mainly of muscle soreness for a few days following treatment. No serious events attributable to manual therapy were reported by the studies reviewed. The Guideline Development Group (GDG) was aware of possible serious but very rare adverse events that may be related to spinal manipulation and took this into account when making a recommendation.
- The GDG noted that the side-effect profile of nonsteroidal anti-inflammatory drugs (NSAIDs) varied between drugs, and therefore although the efficacy could be considered similar across the class, the side effect profile should be considered when determining which drug was most appropriate for the individual. The GDG were aware of the considerable toxicity of NSAIDs and that the randomised controlled trials reviewed were not likely to pick up long term complications, toxicity due to co-morbidities or drug interactions.

- Opioids vary in potency and side-effects, based on the relative activation of different receptors and pathways. The effect of opioids on non-cancer pain is limited by tolerance (decreasing effectiveness of a given dose with repeated use), side-effects (typically constipation, nausea), dependence and addiction.
- Evidence from a single study reporting adverse events at less than 4 months follow up demonstrated an increase in adverse effects for radiofrequency denervation in terms of the number of patients with moderate or severe treatment related pain. There was no difference in other adverse events (change of sensibility and loss of motor function) at short term follow up when radiofrequency denervation was compared to placebo/sham.
- The group discussed the risks associated with the different routes of administration of an epidural. The opinion of the group was that serious complications are very rare. The most common adverse event was a temporary increase in pain which the GDG considered could be outweighed by the potential benefits.
- Complications of surgery (e.g., infections, need for reoperation)

Refer to the "Trade-off between benefits and harms" sections in the full versions of the guideline (for invasive and non-invasive treatment) (see the "Availability of Companion Documents" field) for details about potential harms of specific interventions.

Qualifying Statements

Qualifying Statements

- The recommendations in this guideline represent the view of the National Institute for Health and Care Excellence (NICE), arrived at after careful consideration of the evidence available. When exercising their judgement, professionals are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or service users. The application of the recommendations in this guideline are not mandatory and the guideline does not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.
- Local commissioners and/or providers have a responsibility to enable the guideline to be applied when individual health professionals and their patients or service users wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with compliance with those duties.

Implementation of the Guideline

Description of Implementation Strategy

Putting This Guideline into Practice

The National Institute for Health and Care Excellence (NICE) has produced tools and resources to help you put this guideline into practice.

Putting recommendations into practice can take time. How long may vary from guideline to guideline, and depends on how much change in practice or services is needed. Implementing change is most effective when aligned with local priorities.

Changes recommended for clinical practice that can be done quickly – like changes in prescribing practice – should be shared quickly. This is because healthcare professionals should use guidelines to guide their work – as is required by professional regulating bodies such as the General Medical and Nursing and Midwifery Councils.

Changes should be implemented as soon as possible, unless there is a good reason for not doing so (for example, if it would be better value for money if a package of recommendations were all implemented at once).

Different organisations may need different approaches to implementation, depending on their size and function. Sometimes individual practitioners may be able to respond to recommendations to improve their practice more quickly than large organisations.

Here are some pointers to help organisations put NICE guidelines into practice:

1. Raise awareness through routine communication channels, such as email or newsletters, regular meetings, internal staff briefings and other communications with all relevant partner organisations. Identify things staff can include in their own practice straight away.
2. Identify a lead with an interest in the topic to champion the guideline and motivate others to support its use and make service changes, and to find out any significant issues locally.
3. Carry out a baseline assessment against the recommendations to find out whether there are gaps in current service provision.
4. Think about what data you need to measure improvement and plan how you will collect it. You may want to work with other health and social care organisations and specialist groups to compare current practice with the recommendations. This may also help identify local issues that will slow or prevent implementation.
5. Develop an action plan, with the steps needed to put the guideline into practice, and make sure it is ready as soon as possible. Big, complex changes may take longer to implement, but some may be quick and easy to do. An action plan will help in both cases.
6. For very big changes include milestones and a business case, which will set out additional costs, savings and possible areas for disinvestment. A small project group could develop the action plan. The group might include the guideline champion, a senior organisational sponsor, staff involved in the associated services, finance and information professionals.
7. Implement the action plan with oversight from the lead and the project group. Big projects may also need project management support.
8. Review and monitor how well the guideline is being implemented through the project group. Share progress with those involved in making improvements, as well as relevant boards and local partners.

NICE provides a comprehensive programme of support and resources to maximise uptake and use of evidence and guidance. See the into practice pages for more information.

Also see Leng G, Moore V, Abraham S, editors (2014) Achieving high quality care – practical experience from NICE. Chichester: Wiley.

Implementation Tools

Clinical Algorithm

Mobile Device Resources

Patient Resources

Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Living with Illness

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Bibliographic Source(s)

National Guideline Centre. Low back pain and sciatica in over 16s: assessment and management. London (UK): National Institute for Health and Care Excellence (NICE); 2016 Nov 30. 18 p. (NICE guideline; no. 59).

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2016 Nov 30

Guideline Developer(s)

National Guideline Centre - National Government Agency [Non-U.S.]

Source(s) of Funding

The National Guideline Centre was commissioned by the National Institute for Health and Care Excellence to undertake the work on this guideline.

Guideline Committee

Guideline Development Group

Composition of Group That Authored the Guideline

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Financial Disclosures/Conflicts of Interest

At the start of the guideline development process all Guideline Development Group (GDG) members declared interests including consultancies, fee-paid work, shareholdings, fellowships and support from the healthcare industry. At all subsequent GDG meetings, members declared arising conflicts of interest. The May 2007 (updated October 2008) version of the National Institute for Health and Care Excellence (NICE) code of practice for declaring and dealing with conflicts of interest policy was applied to this guideline.

Members were either required to withdraw completely or for part of the discussion if their declared interest made it appropriate. The details of declared interests and the actions taken are shown in Appendix B (see "Availability of Companion Documents" field).

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: National Collaborating Centre for Primary Care. Low back pain. Early management of persistent non-specific low back pain. London (UK): National Institute for Health and Clinical Excellence (NICE); 2009 May. 25 p. (Clinical guideline; no. 88).

This meets NGC's (revised) inclusion criteria.

Guideline Availability

Available from the National Institute for Health and Care Excellence (NICE) Web site . Also available for download in ePub or eBook formats from the NICE Web site .

Availability of Companion Documents

The following are available:

- Low back pain and sciatica in over 16s: assessment and management. Assessment and non-invasive treatments. Full guideline. London (UK): National Institute for Health and Care Excellence (NICE); 2016 Nov. 816 p. (NICE guideline; no. 59). Available from the National Institute for Health and Care Excellence (NICE) Web site .
- Low back pain and sciatica in over 16s: assessment and management. Invasive treatments. Full guideline. London (UK): National Institute for Health and Care Excellence (NICE); 2016 Nov. 251 p. (NICE guideline; no. 59). Available from the NICE Web site .
- Low back pain and sciatica in over 16s: assessment and management. Appendices. London (UK): National Institute for Health and Care Excellence (NICE); 2016 Nov. (NICE guideline; no. 59). Available from the NICE Web site .
- Low back pain and sciatica in over 16s: assessment and management. Literature search strategies. London (UK): National Institute for Health and Care Excellence (NICE); 2016 Nov. 56 p. (NICE guideline; no. 59). Available from the NICE Web site .
- Low back pain and sciatica in over 16s: assessment and management. Baseline assessment tool. London (UK): National Institute for Health and Care Excellence (NICE); 2016 Nov. (NICE guideline; no. 59). Available from the NICE Web site .
- Low back pain and sciatica in over 16s: assessment and management. Resource impact statement. London (UK): National Institute for Health and Care Excellence (NICE); 2016 Nov. 1 p. (NICE guideline; no. 59). Available from the NICE Web site .
- The guidelines manual 2012. London (UK): National Institute for Health and Care Excellence (NICE); 2012 Nov. Available from the NICE Web site .
- Developing NICE guidelines: the manual 2014. London (UK): National Institute for Health and Care Excellence; 2014 Oct. Available from the NICE Web site .

Patient Resources

The following is available:

- Low back pain and sciatica in over 16s: assessment and management. Information for the public. London (UK): National Institute for Health and Care Excellence; 2016 Nov. 5 p. (NICE guideline; no. 59). Available from the National Institute for Health and Care Excellence (NICE) Web site . Also available for download in ePub or eBook formats from the NICE Web site .

NGC Status

This NGC summary was completed by ECRI Institute on March 3, 2010. This summary was updated by ECRI Institute on July 20, 2010 following the U.S. Food and Drug Administration advisory on Ultram (tramadol hydrochloride), Ultracet (tramadol hydrochloride/acetaminophen). This summary was updated by ECRI Institute on July 26, 2010 following the U.S. Food and Drug Administration (FDA) advisory on Proton Pump Inhibitors (PPI). This summary was updated by ECRI Institute on March 16, 2011 following the U.S. Food and Drug Administration advisory on acetaminophen-containing prescription products. This summary was updated by ECRI Institute on October 28, 2013 following the U.S. Food and Drug Administration advisory on Acetaminophen. This summary was updated by ECRI Institute on February 17, 2017. This summary was updated by ECRI Institute on June 22, 2017 following the U.S. Food and Drug Administration advisory on Codeine and Tramadol Medicines.

The National Institute for Health and Care Excellence (NICE) has granted the National Guideline Clearinghouse (NGC) permission to include summaries of their clinical guidelines with the intention of disseminating and facilitating the implementation of that guidance. NICE has not yet verified this content to confirm that it accurately reflects that original NICE guidance and therefore no guarantees are given by NICE in this regard. All NICE clinical guidelines are prepared in relation to the National Health Service in England and Wales. NICE has not been involved in the development or adaptation of NICE guidance for use in any other country. The full versions of all NICE guidance can be found at www.nice.org.uk .

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